

**Project Name:** Cellular Telephone and Wireless Device Eradication Strategy

**OCIO Project #:**

**Department:** Department of Corrections and Rehabilitation

**Revision Date:**

## Concept Statement

### Description

#### Brief description of the proposed project:

The California Department of Corrections and Rehabilitation (CDCR) is requesting project approval to initiate the designing, engineering, and deployment of the technical solutions to manage the access of cell phones (and wireless devices), including smart phones, used by inmates at Adult Institutions and wards at juvenile justice facilities throughout California. The sizing estimates are best guess potential values. Actual project costs/values will be determined based on the solution chosen. Additionally, the Concept Statement Size Estimating document records the dollar values in the thousands, however, the actual anticipated cost for this project is in the millions (which the toolkit does not accept).

### Need Statement

#### High Level Functional Requirements:

The solution needs to allow transmission of communications from authorized cellular phones while preventing the transmission of communications from unauthorized or contraband cellular telephones without interfering with normal operations of 800 MHz public safety radio system in use at Adult Institutions and Juvenile Justice facilities.

#### What is Driving This Need?

Well documented instances at the national level (and California) of inmates use of contraband cellular telephones to harass the public, control gang and other criminal activities outside prisons, facilitate escapes, and in some instances, plan and coordinate violent attacks and murders on corrections personnel and the public make this request critical. California prisons have experienced a massive increase in cellular telephones smuggled into CDCR's institutions. Inmates are using these devices to make unauthorized calls, text messages, email, access to the internet, traffic in drugs, organize gangs, organize disturbances and plan escapes, and otherwise continuing to engage in illegal activities inside of the CDCR's institutions.

#### Risk to the Organization if This Work is Not Done:

Other interdiction methods have an impact on reducing the number of contraband cellular telephones entering the institution secure perimeters, however a percentage of attempts to smuggle in cellular phones is successful. Without an overarching method to prevent device access to commercial carrier networks, inmates will continue to possess and use contraband cellular telephones. This results in diminished security of the institutions and increased risk to staff and

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### Benefit Statement

#### Intangible Benefits

**Process Improvements** (describe the nature of the process improvement):

Protect the public from inmates incarcerated within Department institutions, secure greater safety for Department personnel and the public, increase the safety and security of the Department's institutions.

**Other Intangible Benefits:**

Potential for technical solution to provide forensic data which may be used to monitor criminal activity outside prisons and validate gang and disruptive group affiliation.

#### Tangible Benefits

**Revenue Generation** (describe how revenue will be generated):

If contraband cellular phones are rendered non functional, inmates will use the inmate/ward telephone system which provides a revenue stream for the inmate welfare fund.

**Cost Savings** (describe how cost will be reduced):

The implementation of this technology will deter and discourage the smuggling of cellular telephones and wireless devices into CDCR Adult institutions and Juvenile Justice facilities due to inoperability of the cellular telephones and wireless devices. Therefore, custody staff will not have to expend as much time searching for contraband cellular telephones and wireless devices allowing the previous time spent on searches to be reallocated to other custodial duties.

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### **Cost Avoidance** (describe the cost and how avoided):

By tackling the contraband cellular phone problem now, there is a potential future cost avoidance by avoiding a possibly more expensive future solution. Cost avoidance may consist of reduced medical costs due to eliminating the costs associated with riots, attacks on staff, and other consequences related to possession and use of illegal cellular telephone and wireless devices.

### **Risk Avoidance** (describe the risk and how avoided):

Risk is to the public from continued criminal activity coordinated from prison via contraband cellular phones. The risk is avoided by blocking the ability of inmates to freely communicate with persons outside the prison. Risk is to the institutions' security and personnel safety. The risk is avoided by blocking the ability of inmates to access information via smart phones that could compromise the institutions' security measures.

### **Improved Services:**

By preventing inmates from using contraband cellular phones to plan and orchestrate illicit and illegal acts, harass and intimidate the general public, propagate gang activities and exert their influence outside of the prisons, CDCR's mission to protect and safeguard staff, inmates, and the general public is accomplished more effectively.

## Consistency

"No" Responses →		Rationale	Action Required
Enterprise Architecture	Yes	Enterprise Architecture currently under development for this type of technology. This project will be compliant with EA once established. Technology and methodology consistent with operational systems in other states, FCC, and NTIA.	CDCR is requesting project approval to request site tests of various vendor technology in order to determine the most feasible solution for cellular telephone and wireless device eradication strategy.
Business Plan	Yes		
Strategic Plan	Yes		

## Impact to Other Entities

### Nature of Impact to Other Entities

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**Entity:** Federal Communications Commission (FCC)

*Describe the nature of the impact:*

The FCC is responsible for managing all radio frequency and spectrum utilization including those used for cellular telephone transmission. The FCC is required to coordinate and facilitate use agreements between the various commercial cellular service providers and the CDCR. Currently there is pending Federal legislation authorizing State penal entities use of cellular signal interruption/blocking technologies.

**Entity:** National Telecommunications and Information Administration (NTIA)

*Describe the nature of the impact:*

The NTIA is an agency in the U.S. Department of Commerce that serves as the executive branch agency principally responsible for advising the President on telecommunications and information policies. In this role, NTIA frequently works with other Executive Branch agencies including the FCC to develop and present the Administration's position on these issues. The NTIA is forming a position for the Administration regarding the value and effectiveness of the project technology. Early comments indicate support for the technology.

**Entity:** Commercial cellular service providers

*Describe the nature of the impact:*

Each commercial cellular service provider operating in a specific geographic area must sign an agreement with the technology provider and the State before this project can be utilized. All required commercial cellular service providers have signed agreements to date for similar technology in other states.

**Entity:** Office of State CIO-Public Safety Communications Division (OCIO-PSCD).

*Describe the nature of the impact:*

The CDCR will partner with the OCIO-PSCD to work with the FCC and NTIA. The OCIO-PSCD is responsible for maintaining the State's public safety radio communications and ensuring all deployed technologies to interdict contraband cellular telephones do not negatively impact these systems.

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### Solution Alternatives

**Alternative 1:**

Managed access to commercial cellular services.

Project approval of an enterprise technical solution to manage the access of cellular devices used on institutional grounds throughout the State, allowing known approved devices to access commercial cellular services and preventing unknown and contraband devices from accessing commercial cellular services. Managed access will draw "unauthorized" cell phone signals to a "mock" high signal commercial grade cellular tower on site which ends communications. "Authorized" cell phone signals are not allowed to connect to this tower and will find the real commercial signal to complete the call.

**Technical Considerations for Alternative 1:**

All product offerings are emerging technologies. All existing offerings are first generation. Technology must not have a negative impact to Public Safety Radio system operations. Currently deployed systems have been reviewed by CDCR staff. These systems were deemed fit for the purpose outlined in this project request. Systems as deployed did not negatively impact public safety radio at those sites. The sites reviewed operate at 800 MHz as does CDCR. On site demonstrations of systems at CDCR facilities will determine fitness for use prior to acquisition. New technology will require personnel training to maintain and operate after deployment. Currently this is the only technical method to prevent a cellular device from accessing commercial cellular services allowed by Federal Law.

ROM Cost: \$18,100,000 to \$35,000,000

**Note: high end of range must not exceed 200% of low end of range****Alternative 2:**

Active jamming of cellular signal transmission.

Project approval of an enterprise technical solution to actively jam commercial cellular service signals in the immediate vicinity of CDCR institutions preventing unknown and contraband devices from accessing commercial cellular services.

**Technical Considerations for Alternative 2:**

All product offerings are emerging technologies. All existing offerings are first generation. Technology must not have a negative impact to Public Safety Radio system operations. This technology is currently prohibited by the Telecommunications Act of 1934. There is potential for disruption of public safety radio systems and other radio frequency use devices. This alternative may be potentially less expensive than managed access. This alternative is not supported by

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the FCC unless Federal law is amended. New technology will require personnel training to maintain and operate after deployment.

ROM Cost: \$17,000,000 to \$30,000,000

**Note: high end of range must not exceed 200% of low end of range**

### Alternative 3:

Cellular device detection through signal triangulation.

The project approval would allow for a site independent technical solution to triangulate on cellular telephone signals within a defined perimeter. This is a passive system. It does not affect the operation of cellular telephones either authorized or not.

### Technical Considerations for Alternative 3:

Technology is in second and third generation and has a proven track record. No agreements are required from commercial cellular service providers. Support and facilitation is not required from FCC or NTIA. Passive system will not negatively impact public safety radio. It is more expensive to deploy than other options. It is more expensive to maintain and operate than other options. System is reliant on site personnel conducting timely search and confiscation of contraband devices to be effective.

ROM Cost: \$40,000,000 to \$80,000,000

**Note: high end of range must not exceed 200% of low end of range**

## Recommendation

### Comparison:

Alternative 1	ROM Cost	Risk
	\$18,100,000 - \$35,000,000	Need FCC support and all commercial carriers need to approve the use.
Alternative 2	ROM Cost	Risk
	\$17,000,000 - \$30,000,000	Currently illegal under current federal law. Only allowed for federal and military governments at this time.
Alternative 3	ROM Cost	Risk
	\$40,000,000 - \$80,000,000	Expensive technology could be accessible to inmate population, thereby making it subject to vandalism, destruction, etc.

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### Conclusions:

1	Managed access is the only currently available technology to allow signal access to certain devices and prohibit access to other devices.
2	Federal Law prohibits some technologies. Pending federal legislative changes may postpone deployment of these technologies for several years or indefinitely.
3	Detection and signal triangulation will require significant personnel resources to identify and confiscate discovered devices. Most costly solution.
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### Recommendation:

Recommend alternative #1. Alternative #1 is currently legal and has proven effective in deployments in other states. Least maintenance and operation support costs.

### Project Approach (if known)

<b>System Complexity:</b>				System Business Hours: (e.g., 24x7, 9am-5pm) :			
Architecture	<input type="checkbox"/> Mainframe	<input checked="" type="checkbox"/> Client Server	<input type="checkbox"/> Web Based		Num. of New Databases:	1	
Technology	<input checked="" type="checkbox"/> New	<input checked="" type="checkbox"/> New to Staff	<input type="checkbox"/> In-House Experience		Interfaces:	Internal	
Implementation	<input type="checkbox"/> Central Site	<input checked="" type="checkbox"/> Phased Roll-out			Num. of Sites:	39	
M & O Support	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Data Center	<input type="checkbox"/> Project	<input checked="" type="checkbox"/> In House			
Procurement Approach: Planned Request for Proposals						Number of Procurements:	
Open Procurement?		Yes		Delegated Procurement?			
Scope of Contract	<input checked="" type="checkbox"/> Development	<input checked="" type="checkbox"/> Implementation	<input checked="" type="checkbox"/> M & O	<input checked="" type="checkbox"/> Other: Testing			
Anticipated Length of Contract:		1.5		Years /	ongoing	extensions for	ongoing years